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ASSIGNMENT BOOKLET 2A

MAT2225 Mathematics 24
Module 2: Section 1 Assignment

FOR STUDENT USE ONLY	
Date Assignment Submitted: _____	(If label is missing or incorrect) Student File Number: _____
Time Spent on Assignment: _____	Module Number: _____

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Assigned Teacher: _____

Assignment Grading: _____

Graded by: _____

Date Assignment Received:

Student's Questions and Comments

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2

MATHEMATICS 24

Module 2
Assignment Booklet 2A

Learning Technologies Branch

Alberta LEARNING

FOR TEACHER'S USE ONLY

Summary

	Total Possible Marks	Your Mark
Section 1 Assignment	50	
	50	

Teacher's Comments

Mathematics 24
Module 2: Wheels
Assignment Booklet 2A
Section 1 Assignment
Learning Technologies Branch
ISBN 0-7741-2583-7

The Learning Technologies Branch acknowledges with appreciation the Alberta Distance Learning Centre and Pembina Hills Regional Division No. 7 for their review of this Assignment Booklet.

This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	
General Public	
Other	

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ASSIGNMENT BOOKLET 2A
MATHEMATICS 24: MODULE 2
SECTION 1 ASSIGNMENT

This Assignment Booklet is worth 50 marks out of the total 100 marks for the assignments in Module 2. The value of each assignment and each question is stated in the left margin.

Read all parts of your assignment carefully and record your answers in the appropriate places. If you have difficulty with an assignment, go back to your Student Module Booklet and review the appropriate lesson. Be sure to proofread your answers carefully before submitting your Assignment Booklet.

50

Section 1 Assignment: To Buy or To Lease?

Clearly show how you arrived at your answers by showing your work.

5

1. William is considering buying a new truck. The selling price of the truck is $34 500.00. The dealership has offered $8500.00 for his old truck. William believes he can get more if he sells his old truck privately. How much would he have to sell his truck for privately to be better off than trading it in?

(8)

2. Samantha is shopping for a new car. Using the vehicle pricing spreadsheet you created in Lesson 1, calculate the final cost, including GST, of the vehicle Samantha is considering. Print a copy of your spreadsheet and attach it in the space below.

The base price of the car is $25 449.00. As options, Samantha wants a 4-speed automatic transmission that is $1500.00, air conditioning for $1200.00, a block heater for $120.00, and a sound system for $350.00. Samantha will be charged $100.00 for the air-conditioning tax. She has an old vehicle that she will trade in for $8250.00.

(4)

3. A car sells for $35 000.00 when new. Use the depreciation table on page 107 in your textbook. Calculate the residual and the total depreciation after four years for this car.

Turn to Section 1: Lesson 2 in the Module 2 Student Module Booklet.

(8)

4. Bernice wants to drive a new car and has decided to lease it. The lease price is $29 900.00. The lease rate is 3.9% on a five-year lease. The residual value is estimated to be $11 000.00. Using the leasing spreadsheet you created in Lesson 2, calculate the monthly lease payment, including GST, for this vehicle. Print a copy of your spreadsheet and attach it in the space below.

Turn to Section 1: Lesson 3 in the Module 2 Student Module Booklet.

(5) **5.** Without using a spreadsheet, calculate the interest charged in the first month on a loan of $25 000.00 borrowed at 6% for five years.

6. Jerry borrows $16 000.00 to buy a new car. The finance company offers an interest rate of 8% and Jerry finances the vehicle over three years. Using the amortization spreadsheet you created in Lesson 3, answer the following questions.

(2) **a.** What will Jerry pay in total over the three years?

(2) **b.** How much of the total amount will be interest?

(8) **c.** Attach a copy of your spreadsheet in the space below.

Turn to Section 1: Lesson 4 in the Module 2 Student Module Booklet.

(8)

7. You decide to lease a car and then buy it at the end of the five-year lease. The residual value will be $13 500. You intend to save $13 500 plus GST by making monthly deposits at the end of each month for five years. If you can expect to earn 3% on your investments, how much should you save each month?

Use the savings spreadsheet you created in Lesson 4. Print a copy of your spreadsheet and attach it in the space below.

Submit your completed Assignment Booklet 2A to your teacher to be marked.

Turn to Section 1: Conclusion in the Module 1 Student Module Booklet.

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ASSIGNMENT BOOKLET 2B

MAT2225 Mathematics 24
Module 2: Section 2 Assignment and Final Module Assignment

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Date Assignment Submitted: _____	(If label is missing or incorrect) Student File Number: _____
Time Spent on Assignment: _____	Module Number: _____

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Assigned Teacher: _____
Assignment Grading: _____
Graded by: _____
Date Assignment Received:

Student's Questions and Comments

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Teacher's Comments

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2

MATHEMATICS 24

Module 2
Assignment Booklet 2B

Learning Technologies Branch

Alberta LEARNING

FOR TEACHER'S USE ONLY

Summary

	Total Possible Marks	Your Mark
Section 2 Assignment	25	
Final Module Assignment	25	
	50	

Teacher's Comments

Mathematics 24
Module 2: Wheels
Assignment Booklet 2B
Section 2 Assignment and Final Module Assignment
Learning Technologies Branch
ISBN 0-7741-2584-5

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Home Instructors	
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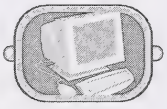
Other	



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ASSIGNMENT BOOKLET 2B
MATHEMATICS 24: MODULE 2
SECTION 2 ASSIGNMENT AND FINAL MODULE ASSIGNMENT

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25

Section 2 Assignment: The Costs of Owning a Vehicle

Clearly show how you arrived at your answers by showing your work.

6

1. Mary has just purchased a 1990 four-door Chevrolet Cavalier for $1000.00. She is wondering if she should have glass and collision coverage in her auto insurance. Research her options and summarize your findings.

Turn to Section 2: Lesson 2 in the Module 2 Student Module Booklet.

(5) **2.** Victor has just purchased a new truck for $23 999.00. Use the depreciation spreadsheet you created in Lesson 2 of this section. Estimate the depreciated value after five years. Print a copy of your spreadsheet and attach it in the space below.

(6) **3.** Charlotte plans to rent a SUV for her trip to Vancouver. She estimates she will drive 2500 km in total. The SUV averages 13.8 L/100 km. Gasoline is selling for 81.9¢/L. Use the spreadsheet you created in Lesson 2 of this section. Estimate the amount she will spend on gasoline. Print a copy of your spreadsheet and attach it in the space below.

(8)

4. Djon brought in his van in for repairs to its front end. Create a work order spreadsheet to calculate the cost of the following repairs. Use a labour rate of $79.00 per hour and a shop supply rate of 7% of the labour cost.

- diagnostic time: 0.50 hour

- torsion bars: $699.50
- torsion bar adjustor arms: $181.90
- labour for installation: 3 hours

- upper control arm bushings: $94.70
- labour for installation: 3 hours

- tie rod end: $218.39
- labour for installation: 0.60 hours

Attach a copy of your completed invoice below.

25

Final Module Assignment

Clearly show how you arrived at your answers by showing your work.

Daniel chooses to buy a new Toyota Corolla for $19 383.00 before GST. He will borrow the money at 5.9% and will pay it back with 48 monthly payments.

(3) **1.** Calculate the amount of money, including the GST, Daniel will need to borrow.

(6) **2.** Use a spreadsheet to calculate the monthly payments. Attach a copy of your spreadsheet in the space below.

(6)

3. If Daniel chose to lease the vehicle over four years, what would his monthly payment be? The lease interest rate is also 5.9% and the residual is $11 750.00. Use a spreadsheet to calculate his monthly payments. Attach a copy of your spreadsheet in the space below.

(6) **4.** If Daniel chose to lease and save toward the residual plus GST, calculate the monthly deposits he would need to make. Assume he can make 4% on his savings. Use a spreadsheet to calculate his monthly deposits. Attach a copy of your spreadsheet in the space below.

(4) **5.** Based on your answers to questions 1 to 4, what would you advise Daniel to do?

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